

GROUND WATER FORUM TELECONFERENCE

Thursday April 3, 2003

SPRING MEETING IN SEATTLE

Bernie Zavala (Region 10) said the agenda for the meeting is now final. Most of the speakers will be presenting their materials on Wednesday and Thursday. Bernie asked the GWF to send him or Dick Willey (Region 1) questions to ask the DNAPL panel. If the panelists receive the questions ahead of time, they might be able to incorporate the answers into their presentations. Dick has given the Engineering Forum co-chairs a list of questions and topics he thought the GWF would be interested in having the panel cover. Bernie will email the list to GWF members.

Ruth Izraeli (Region 2) asked if she could bring site maps, cross sections, and site-specific questions. Dick indicated that it would be an open discussion, so site-specific questions were possible. However that Ruth might get better responses if the panel members had the information ahead of time. Dick said the only ground rules for questions to the panel is that they not concern policy since the panel members are technical, not policy, experts.

During the last GWF teleconference call, Carolyn Nobel (Parsons) asked if her colleague Roger Peoples could present the findings of their project "Demonstration of Long-term Monitoring Optimization Tools for Ground-water Monitoring Networks" at the Seattle meeting. Bernie said they are still considering this request but there is not much time available—the most time they could afford was 30 minutes. Kathy Yager (TIO) said that 30 minutes was sufficient to discuss the report itself, but would not be enough time to talk about the follow-on projects she hoped to involve the GWF in. Steve Mangion (HSTL, Region 1) suggested that they consider doing an internet presentation, which could draw more attendees. Kathy indicated that TIO could sponsor an internet. She said the main report is due out soon, and she wants the GWF to review it. TIO will also prepare a white paper and wants GWF input as to what it should address. Bernie said they decide on feasibility of a Seattle presentation in the coming week.

SAMPLING AT KETTLEMAN HILLS

Brian Lewis (CA DTSC) had a question for the GWF on ground-water monitoring at Kettleman Hills, which is a Subtitle C, offsite, commercial hazardous waste landfill operated by Chem Waste. The landfill has been operating for a number of years and includes both closed and active units. Monitoring wells are typically over 400 feet deep. The screened intervals of the older wells are generally 40- to 60-feet long, and the screened intervals of the newer wells are typically 20- to 40-feet long. Some wells straddle the water table; others do not. The aquifer has a very low yield and dipping bedding planes. In general, dedicated, variable-speed Grundfos pumps are located in the middle part of the screens. Several of the wells at active units have statistically significant increases of volatile organics. Because of the depth to ground water, soil gas monitoring systems were installed at several of their units.

Brian is concerned that the ground-water sampling method is providing an average concentration that is not representative of what is entering the well. Currently samplers purge the amount of water that is above the pump intake and then perform a field stabilization technique. Several parameters vary greatly between wells. There exists over 18 years of quarterly data for 60 wells; thus, Chem Waste believes the site is well characterized.

Brian indicated that purging in some of the wells draws water below the screened intervals. In this case, if the most concentrated contamination is in this area, it may be stripped as the water flows into the screened interval. On the other hand, if the highest concentrations are below the pumped location, there is a good chance they will be diluted. The issue is to determine the concentration distribution throughout the saturated screened interval to ascertain if there is a problem. DTSC is considering recommending that the facility use a FLUTE™ discrete monitoring system to check suspect wells. The problem with this method is it uses preset sampling locations and basically packs off others. If the

predetermined locations are incorrect, the conclusions from the data collected will be too. The system is also expensive and difficult to use. Diffusion bags should provide a better idea of the vertical distribution, but they too will provide erroneous information if the vertical gradient in these wells is not known. Given the aquifer permeability, diffusion samplers should, however, be able to identify zones of high and low concentrations.

A membrane interface probe (MIP) was suggested by Mark Henry. An MIP applies heat across a permeable membrane and measures the volatiles that permeate through it with a GC, total detector (PID, ECD, FID), or ITMS located at the surface. However, there may be a depth limitation on the available equipment.

Brian also asked whether anyone has dealt with requests to scale back Appendix VIII sampling. He needs a legal justification to do so. No GWF member on the call could provide a legal justification, although they did know of instances where they had done it informally.

ATTENDEES

Regions:

Dick Willey, Region 1
Ruth Izraeli, Region 2
Kevin Willis, Region 2
Dave Petrovski, Region 5
Greg Lyssy, Region 6
Vince Malott, Region 6
Jeff Johnson, Region 7
Glenn Bruck, Region 9
Curt Black, Region 10
René Fuentes, Region 10
Bernie Zavala, Region 10

States:

Brian Lewis, CA DTSC
Mark Henry, MI DEQ

Bruce Brody-Hein, OR DEQ

Jennifer Sutter, OR DEQ

Labs:

Dave Burden, NRMRL-SPRD/ORD

US Corps of Engineers

Steve White

US Geological Survey

Doug Yeskis

Headquarters:

Matt Charsky, OERR

Kathy Yager, TIO

Steve Mangion, HSTL/ORD, Region 1

Contractors:

Bill Myers, EMS